



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,260	12/18/2001	John C. Opfer	SC-5325	6090
24275	7590	10/01/2004	EXAMINER	
James V. Lapacek S & C Electric Co. 6601 N. Ridge Blvd. Chicago, IL 60626			KYLE, MICHAEL J	
			ART UNIT	PAPER NUMBER
			3676	

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	Applicant(s)
10/017,260	OPFER ET AL.
Examiner	Art Unit
Michael J Kyle	3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1 and 4-7 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 4-7 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: ____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: ____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

Art Unit: 3676

## **DETAILED ACTION**

1. Examiner notes the telephone conversation on September 2, 2004 with James Lapacek. Mr. Lapacek noted the Office Action mailed on August 31, 2004 was marked as being a "Final Rejection" on the Office Action Summary, however, in the examiner's response to arguments, the examiner stated the Office Action was "Non-Final". The Office Action was intended to be Non-Final. To remedy this, examiner is re-sending the Office Action mailed on August 31, 2004, which is now clearly marked as "Non-Final". The period for reply will begin on the mailing date of this action.

### ***Claim Objections***

2. Claim 4 is objected to because of the limitation "said rupture disc". Examiner believes this feature to be the same as the "disc-shaped member" of claim 1. Examiner suggests amending the terminology to maintain consistency between the claims.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flory (U.S. Patent No. 4,361,165) in view of Johnson (U.S. Patent No. 5,119,555). With respect to claims 1 and 7, Flory discloses a pressure relief arrangement comprising a sealing member (92)

Art Unit: 3676

between two housing portions (12, 14), first means (54, 58) for applying compressive sealing force between the two housing portions, and second means (52, 40a, 40b) operative with the first means and independent of the sealing member, such that the first means applies the compressive sealing force between the two housing portions solely through the second means (52, 40a, 40b). The second means comprise at least one member (52) loaded in shear and becoming disintegral in response to overpressure exceeding a predetermined value. Examiner asserts that Flory discloses the second means to comprise a plurality of rupture disc members (52) having predetermined portions of reduced cross section because considers each pin (52) to be a rupture disc member. Each of these pins (52) has a reduced cross section when compared to an outer end portion of the pin. However, to more clearly show this feature, examiner further relies on the teachings of Johnson.

5. Johnson teaches a disc-shaped member (16) with predetermined, circumferentially arranged portions of reduced cross section (34). Examiner notes any cross section taken along the V-shaped groove (34) will have a reduced cross section when compared to the rest of the length of retaining element 16. Any one of the cross section taken along 34 is considered a portion. Johnson uses the portion of reduced cross section (34) to concentrate strain, and in turn stress, to a predetermined point on the retaining member to control where failure is to occur. It would have been obvious to one having ordinary skill in the art at the time of the invention to replace the shear pin, or disc shaped member 52, of Flory with the disc-shaped member (16) of Johnson, in order to allow failure at a predetermined area of the disc shaped member. The portions of reduced area of Johnson will also provide consistent failure results at a known stress value.

6. With respect to claim 4, the combination of Flory and Johnson discloses the first means (54, 58) and rupture disc members (52) are dimensioned and assembled to focus applied forces in a predetermined manner to the rupture disc members.
7. With respect to claims 5 and 6, Flory discloses the first means to include third means (54) for focusing applied forces to the second means. The first means further comprises fourth means (42 and the axial through hole in flange 50) for aligning the first, second, and third means.

***Response to Arguments***

8. Applicant's arguments with respect to claims 1 and 7 have been considered but are moot in view of the new ground(s) of rejection. These claims now stand rejected by the combination of Flory and Johnson. Applicant argues that the studs of Flory having a head and uniform cross section do not constitute rupture disc members. Examiner disagrees with this argument, as the studs of Flory meet all the claimed structural limitations of the rupture disc. However, to better show this feature, examiner now relies on the teachings of Johnson. The shear pin (60) of Johnson also meets all claimed limitations of rupture disc as described in the body of rejection above. Although claim 1 has been amended, the amended subject matter of claim 1 was previously presented in claim 3. Because examiner has changed the grounds of rejection based on subject matter that has already been presented, this action is non-final.

---

***Conclusion***

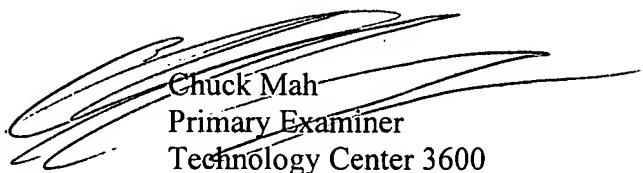
Art Unit: 3676

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Kyle whose telephone number is 703-305-3614. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk



Chuck Mah  
Primary Examiner  
Technology Center 3600